

**(4.6) Reasoning About Factoring**

Types of Factoring:

- 1) GCF
- 2) Simple Trinomial
- 3) Complex Trinomial
- 4) PST
- 5) Difference of Squares

Factor completely.

1)  $x^2 + 10x + 16$

2)  $16m^2 - 25$

Apr 18-7:26 PM

**(4.6) Reasoning About Factoring**

Types of Factoring:

- 1) GCF
- 2) Simple Trinomial
- 3) Complex Trinomial
- 4) PST
- 5) Difference of Squares

Factor completely.

1)  $x^2 + 10x + 16$

$$\begin{array}{r} x^2 + 10x + 16 \\ \underline{x(x+8) + 2(x+8)} \\ (x+8)(x+2) \end{array}$$

2)  $16m^2 - 25$

$$\begin{array}{r} 16m^2 - 25 \\ \underline{(4m)^2 - (5)^2} \\ (4m-5)(4m+5) \end{array}$$

Apr 18-7:26 PM

3)  $9y^2 + 6y + 1$

4)  $15m^3n^4 + 25m^2n^3 - 10mn^5$

5)  $2x^2 - 5x - 12$

6)  $2x^2y - 2y^3$

7)  $a^2c^2 - 5ac + 6$

8)  $3x^2 + 18xy - 48y^2$

Apr 18-7:42 PM

$$\begin{array}{l} 3) 9y^2 + 6y + 1 \\ \underline{(3y+1)^2} \\ (3y+1)^2 \\ 4) 15m^3n^4 + 25m^2n^3 - 10mn^5 \\ \underline{5mn^3(3m^2n + 5m - 2n^2)} \\ 5) 2x^2 - 5x - 12 \\ \underline{(2x+3)(x-4)} \\ (2x+3)(x-4) \\ 6) 2x^2y - 2y^3 \\ \underline{2y(x^2 - y^2)} \\ 2y(x-y)(x+y) \\ 7) a^2c^2 - 5ac + 6 \\ \underline{(ac-3)(ac-2)} \\ (ac-3)(ac-2) \\ 8) 3x^2 + 18xy - 48y^2 \\ \underline{3(x^2 + 6xy - 16y^2)} \\ 3(x+8y)(x-2y) \end{array}$$

Apr 18-7:42 PM

$$\begin{array}{r} 9) 6p^2 - 7p + 2 \\ \underline{3p(2p-1) - 2(2p-1)} \\ (2p-1)(3p-2) \end{array}$$

10)  $16h^2 - 48h + 36$

11)  $100m^4 - 121n^2$

12)  $x^2 - 17x - 18$

$$\begin{array}{r} 100m^4 - 121n^2 \\ \underline{(10m^2 + 11n)(10m^2 - 11n)} \\ (10m^2 + 11n)(10m^2 - 11n) \end{array}$$

$$\begin{array}{r} x^2 - 17x - 18 \\ \underline{(x-18)(x+1)} \\ (x-18)(x+1) \end{array}$$

Apr 18-7:47 PM

9)  $6p^2 - 7p + 2$

10)  $16h^2 - 48h + 36$

11)  $100m^6 - 121n^2$

12)  $x^2 - 17x - 18$

$$(10m^3 - 11n)(10m^3 + 11n)$$

$$m^3 \times m^3 = m^{3+3} = m^6$$

Apr 18-7:47 PM

Homework

p. 236 & 237

q. 1ace, 3a) 6 adf, 7-9 abc, 10 a e f, 13

Apr 15-8:53 AM